



Service Manual

The essentials of Imaging

Pi3505e Pi3505e/PS

1. SAFETY PRECAUTIONS FOR INSPECTION AND SERVICE

- When performing inspection and service procedures, observe the following precautions to prevent accidents and ensure utmost safety.
- * Depending on the model, some of the precautions given in the following do not apply.
- Different markings are used to denote specific meanings as detailed below.



WARNING

- Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

- Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
- The following graphic symbols are used to give instructions that need to be observed.



Used to call the service technician attention to what is graphically represented inside the marking (including a warning).



Used to prohibit the service technician from doing what is graphically represented inside the marking.



Used to instruct the service technician to do what is graphically represented inside the marking.

1-1. Warning



WARNING

1. Always observe precautions.



- Parts requiring special attention in this product will include a label containing the mark shown on the left plus precautionary notes. Be sure to observe the precautions.
- Be sure to observe the “Safety Information” given in the Operator’s Manual.



WARNING

2. Before starting the procedures, be sure to unplug the power cord.



- This product contains a high-voltage unit and a circuit with a large current capacity that may cause an electric shock or burn.
- The product also contains parts that can jerk suddenly and cause injury.
- If this product uses a laser, laser beam leakage may cause eye damage or blindness.

3. Do not throw toner or the toner bottle into a fire.



- Do not throw toner or the Toner Bottle (Imaging Cartridge, Toner Cartridge) into a fire. Toner expelled from the fire may cause burns.

4. Use the specified parts.



- For replacement parts, always use the genuine parts specified in the manufacturer's parts manual. Installing a wrong or unauthorized part could cause dielectric breakdown, overload, or undermine safety devices resulting in possible electric shock or fire.
- Replace a blown electrical fuse or thermal fuse with its corresponding genuine part specified in the manufacturer's parts manual. Installing a fuse of a different make or rating could lead to a possible fire. If a thermal fuse blows frequently, the temperature control system may have a problem and action must be taken to eliminate the cause of the problem.

5. Handle the power cord with care and never use a multiple outlet.



- Do not break, crush or otherwise damage the power cord. Placing a heavy object on the power cord, or pulling or bending it may damage it, resulting in a possible fire or electric shock.
- Do not use a multiple outlet to which any other appliance or machine is connected.
- Be sure the power outlet meets or exceeds the specified capacity.
- Use only the power cord supplied in the package. If a power cord is not supplied, only use the power cord and plug that is specified in POWER CORD INSTRUCTION. Failure to use this cord could result in a fire or electrical shock.
- Use the power cord supplied in the package only for this machine and NEVER use it for any other product. Failure to observe this precaution could result in a fire or electrical shock.

6. Be careful with the high-voltage parts.



- A part marked with the symbol shown on the left carries a high voltage. Touching it could result in an electric shock or burn. Be sure to unplug the power cord before servicing this part or the parts near it.

7. Do not work with wet hands.



- Do not unplug or plug in the power cord, or perform any kind of service or inspection with wet hands. Doing so could result in an electric shock.



WARNING

8. Do not touch a high-temperature part.



- A part marked with the symbol shown on the left and other parts such as the exposure lamp and fusing roller can be very hot while the machine is energized. Touching them may result in a burn.
- Wait until these parts have cooled down before replacing them or any surrounding parts.

9. Maintain a grounded connection at all times.



- Connect the power cord to an electrical outlet that is equipped with a grounding terminal.

10. Do not remodel the product.



- Modifying this product in a manner not authorized by the manufacturer may result in a fire or electric shock. If this product uses a laser, laser beam leakage may cause eye damage or blindness.

11. Restore all parts and harnesses to their original positions.



- To promote safety and prevent product damage, make sure the harnesses are returned to their original positions and properly secured in their clamps and saddles in order to avoid hot parts, high-voltage parts, sharp edges, or being crushed.
- To promote safety, make sure that all tubing and other insulating materials are returned to their original positions. Make sure that floating components mounted on the circuit boards are at their correct distance and position off the boards.

1-2. Caution



CAUTION

1. Precautions for Service Jobs.



- A star washer and spring washer, if used originally, must be reinstalled. Omitting them may result in contact failure which could cause an electric shock or fire.
- When reassembling parts, make sure that the correct screws (size, type) are used in the correct places. Using the wrong screw could lead to stripped threads, poorly secured parts, poor insulating or grounding, and result in a malfunction, electric shock or injury.
- Take great care to avoid personal injury from possible burrs and sharp edges on the parts, frames and chassis of the product.
- When moving the product or removing an option, use care not to injure your back or allow your hands to be caught in mechanisms.



CAUTION

2. Precautions for Servicing with Covers and Parts Removed.



- Wherever feasible, keep all parts and covers mounted when energizing the product.
- If energizing the product with a cover removed is absolutely unavoidable, do not touch any exposed live parts and use care not to allow your clothing to be caught in the moving parts. Never leave a product in this condition unattended.
- Never place disassembled parts or a container of liquid on the product. Parts falling into, or the liquid spilling inside, the mechanism could result in an electric shock or fire.



- Never use a flammable spray near the product. This could result in a fire.
- Make sure the power cord is unplugged before removing or installing circuit boards or plugging in or unplugging connectors.
- Always use the interlock switch actuating jig to actuate an interlock switch when a cover is opened or removed. The use of folded paper or some other object may damage the interlock switch mechanism, possibly resulting in an electric shock, injury or blindness.

3. Precautions for the Working Environment.



- The product must be placed on a flat, level surface that is stable and secure.
- Never place this product or its parts on an unsteady or tilting workbench when servicing.
- Provide good ventilation at regular intervals if a service job must be done in a confined space for a long period of time.
- Avoid dusty locations and places exposed to oil or steam.
- Avoid working positions that may block the ventilation ports of the product.

4. Precautions for Handling Batteries. (Lithium, Nickel-Cadmium, etc.)



- Replace a rundown battery with the same type as specified in the manufacturer's parts manual.
- Before installing a new battery, make sure of the correct polarity of the installation or the battery could burst.
- Dispose of used batteries according to the local regulations. Never dispose of them at the user's premises or attempt to try to discharge one.

5. Precautions for the Laser Beam. (Only for Products Employing a Laser)



- Removing the cover marked with the caution label could lead to possible exposure to the laser beam, resulting in eye damage or blindness. Be sure to unplug the power cord before removing this cover.
- If removing this cover while the power is ON is unavoidable, be sure to wear protective laser goggles that meet specifications.
- Make sure that no one enters the room when the machine is in this condition.
- When handling the laser unit, observe the "Precautions for Handling Laser Equipment."

6. Precautions for storing the toner or imaging cartridge.



- Be sure to keep the toner or imaging cartridge out of the reach of children. Licking the imaging cartridge or ingesting its contents is harmful to your health.

1-3. Used Batteries Precautions

ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

Germany

VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.

Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ.

Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

France

ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.

Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.

Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

Denmark

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.

Udskiftning må kun ske med batteri af samme fabrikat og type.

Levér det brugte batteri tilbage til leverandøren.

Finland, Sweden

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.

Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.

Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING

Explosionsfara vid felaktigt batteribyte.

Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.

Kassera använt batteri enligt fabrikantens instruktion.

Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.

Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.

Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

1-4. Other Precautions

- When handling circuit boards, observe the “HANDLING of PWBs”.
- The PC Drum is a very delicate component. Observe the precautions given in “HANDLING OF THE PC DRUM” because mishandling may result in serious image problems.
- Note that replacement of a circuit board may call for readjustments or resetting of particular items, or software installation.

1-5. Precautions for Service

- When performing inspection and service procedures, observe the following precautions to prevent mishandling of the machine and its parts.
- * Depending on the model, some of the precautions given in the following do not apply.

1. Precautions Before Service

- When the user is using a word processor or personal computer from a wall outlet of the same line, take necessary steps to prevent the circuit breaker from opening due to overloads.
- Never disturb the LAN by breaking or making a network connection, altering termination, installing or removing networking hardware or software, or shutting down networked devices without the knowledge and express permission of the network administrator or the shop supervisor.

2. How to Use this Book

DIS/REASSEMBLY, ADJUSTMENT

- To reassemble the product, reverse the order of disassembly unless otherwise specified.

TROUBLESHOOTING

- If a component on a PWB or any other functional unit including a motor is defective, the text only instructs you to replace the whole PWB or functional unit and does not give troubleshooting procedures applicable within the defective unit.
- All troubleshooting procedures contained herein assume that there are no breaks in the harnesses and cords and all connectors are plugged into the right positions.
- The procedures preclude possible malfunctions due to noise and other external causes.

3. Precautions for Service

- Keep all disassembled parts in good order and keep tools under control so that none will be lost or damaged.
- After completing a service job, perform a safety check. Make sure that all parts, wiring and screws are returned to their original positions.
- Do not pull out the toner hopper while the toner bottle is turning. This could result in a damaged motor or locking mechanism.
- If the product is to be run with the front door open, make sure that the toner hopper is in the locked position.
- Do not use an air gun or vacuum cleaner for cleaning the ATDC Sensor and other sensors, as they can cause electrostatic destruction. Use a blower brush and cloth. If a unit containing these sensors is to be cleaned, first remove the sensors from the unit.

4. Precautions for Dis/Reassembly

- Be sure to unplug the copier from the outlet before attempting to service the copier.
- The basic rule is not to operate the copier anytime during disassembly. If it is absolutely necessary to run the copier with its covers removed, use care not to allow your clothing to be caught in revolving parts such as the timing belt and gears.
- Before attempting to replace parts and unplug connectors, make sure that the power cord of the copier has been unplugged from the wall outlet.
- Be sure to use the Interlock Switch Actuating Jig whenever it is necessary to actuate the Interlock Switch with the covers left open or removed.
- While the product is energized, do not unplug or plug connectors into the circuit boards or harnesses.
- Never use flammable sprays near the copier.
- A used battery should be disposed of according to the local regulations and never be discarded casually or left unattended at the user's premises.
- When reassembling parts, make sure that the correct screws (size, type) and toothed washer are used in the correct places.

5. Precautions for Circuit Inspection

- Never create a closed circuit across connector pins except those specified in the text and on the printed circuit.
- When creating a closed circuit and measuring a voltage across connector pins specified in the text, be sure to use the GND wire.

6. Handling of PWBs

During Transportation/Storage

- During transportation or when in storage, new P.W. Boards must not be indiscriminately removed from their protective conductive bags.
- Do not store or place P.W. Boards in a location exposed to direct sunlight and high temperature.
- When it becomes absolutely necessary to remove a Board from its conductive bag or case, always place it on its conductive mat in an area as free as possible from static electricity.
- Do not touch the pins of the ICs with your bare hands.
- Protect the PWBs from any external force so that they are not bent or damaged.

During Inspection/Replacement

- Avoid checking the IC directly with a multimeter; use connectors on the Board.
- Never create a closed circuit across IC pins with a metal tool.
- Before unplugging connectors from the P.W. Boards, make sure that the power cord has been unplugged from the outlet.
- When removing a Board from its conductive bag or conductive case, do not touch the pins of the ICs or the printed pattern. Place it in position by holding only the edges of the Board.
- When touching the PWB, wear a wrist strap and connect its cord to a securely grounded place whenever possible. If you cannot wear a wrist strap, touch a metal part to discharge static electricity before touching the PWB.
- Note that replacement of a PWB may call for readjustments or resetting of particular items.

7. Handling of Other Parts

- The magnet roller generates a strong magnetic field. Do not bring it near a watch, floppy disk, magnetic card, or CRT tube.

8. Handling of the PC Drum

* Only for Products Not Employing an Imaging Cartridge.

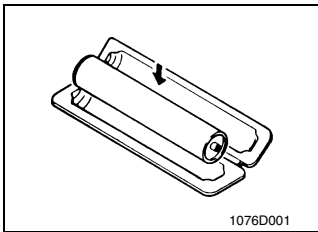
During Transportation/Storage

- Use the specified carton whenever moving or storing the PC Drum.
- The storage temperature is in the range between -20°C and $+40^{\circ}\text{C}$.
- In summer, avoid leaving the PC Drum in a car for a long time.

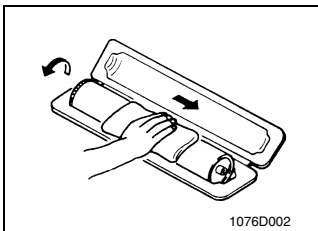
Handling

- Ensure that the correct PC Drum is used.
- Whenever the PC Drum has been removed from the copier, store it in its carton or protect it with a Drum Cloth.
- The PC Drum exhibits greatest light fatigue after being exposed to strong light over an extended period of time. Never, therefore, expose it to direct sunlight.
- Use care not to contaminate the surface of the PC Drum with oil-base solvent, fingerprints, and other foreign matter.
- Do not scratch the surface of the PC Drum.
- Do not apply chemicals to the surface of the PC Drum.
- Do not attempt to wipe clean the surface of the PC Drum.

If, however, the surface is contaminated with fingerprints, clean it using the following procedure.

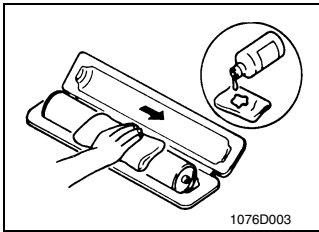


A. Place the PC Drum into one half of its carton.



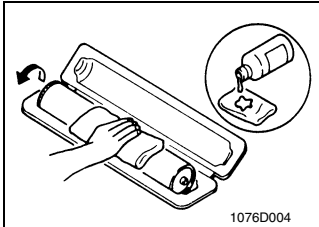
B. Gently wipe the residual toner off the surface of the PC Drum with a dry, Dust-Free Cotton Pad.

- Turn the PC Drum so that the area of its surface on which the line of toner left by the Cleaning Blade is present is facing straight up. Wipe the surface in one continuous movement from the rear edge of the PC Drum to the front edge and off the surface of the PC Drum.
 - Turn the PC Drum slightly and wipe the newly exposed surface area with a CLEAN face of the Dust-Free Cotton Pad. Repeat this procedure until the entire surface of the PC Drum has been thoroughly cleaned.
- * At this time, always use a CLEAN face of the dry Dust-Free Cotton Pad until no toner is evident on the face of the Pad after wiping.



- C. Soak a small amount of either ethyl alcohol or isopropyl alcohol into a clean, unused Dust-Free Cotton Pad which has been folded over into quarters. Now, wipe the surface of the PC Drum in one continuous movement from its rear edge to its front edge and off its surface one to two times.

* Never move the Pad back and forth.



- D. Using the SAME face of the Pad, repeat the procedure explained in the latter half of step 3 until the entire surface of the PC Drum has been wiped. Always OVERLAP the areas when wiping. Two complete turns of the PC Drum would be appropriate for cleaning.

NOTES

- Even when the PC Drum is only locally dirtied, wipe the entire surface.
- Do not expose the PC Drum to direct sunlight. Clean it as quickly as possible even under interior illumination.
- If dirt remains after cleaning, repeat the entire procedure from the beginning one more time.

9. Handling of the Imaging Cartridge and Print Unit

* Only for Products Employing an Imaging Cartridge and Print Unit.

During Transportation/Storage

- The storage temperature is in the range between -20°C and $+40^{\circ}\text{C}$.
- In summer, avoid leaving the Imaging Cartridge and Print Unit in a car for a long time.

Handling

- Store the Imaging Cartridge and Print Unit in a place that is not exposed to direct sunlight.

Precautionary Information on the PC Drum Inside the Imaging Cartridge and Print Unit.

- Use care not to contaminate the surface of the PC Drum with oil-base solvent, fingerprints, and other foreign matter.
- Do not scratch the surface of the PC Drum.
- Do not attempt to wipe clean the surface of the PC Drum.

CONTENTS

1. SAFETY PRECAUTIONS FOR INSPECTION AND SERVICE	P-1
1-1. Warning	P-1
1-2. Caution	P-3
1-3. Used Batteries Precautions	P-5
1-4. Other Precautions	P-6
1-5. Precautions for Service	P-6

GENERAL, MECHANICAL/ELECTRICAL

1. SPECIFICATIONS	M-1
1-1. Controller Specifications	M-1
1-2. Supporting Client Specifications	M-2
2. FUNCTION OVERVIEW OF CIRCUIT BOARDS	M-3
2-1. CLAN circuit board	M-3

DIS/REASSEMBLY, ADJUSTMENT

1. DISASSEMBLY/REASSEMBLY	D-1
1-1. Removing parts	D-1
1-2. Checking the assembly	D-8

DISPLAYS/SETTINGS

1. CHECKING TOUCH PANEL DISPLAYS	S-1
1-1. Printer controller/Network interface unit	S-1
2. CONTROLLER NETWORK SETTING	S-2
3. SOFT SWITCH	S-3
3-1. Changing soft switch settings	S-3
3-2. Soft switch settings	S-5

TROUBLESHOOTING

1. PROBLEMS WHILE PRINTING FROM A COMPUTER	T-1
1-1. Computer printing problems	T-1
2. WARM RESTART	T-12
2-1. Overview	T-12
2-2. Warm restart procedure	T-12
2-3. Warm restart operation	T-12

GENERAL, MECHANICAL/ELECTRICAL

1. SPECIFICATIONS

1-1. Controller Specificationss

Name	Pi3505e, Pi3505e/PS
Type	Copier printer controller
Print Speed	Di3510/Di3510f : 35ppm Di3010/Di3010f : 30ppm Di2510/Di2510f : 25ppm Di2010/Di2010f : 20ppm (U.S. only)
Printer Language	PCL5e PCL6(XL ver.2.0) PostScript 3 Emulation (Pi3505e/PS)
ROM	16MB Compact Flash Card (Pi3505e) 32MB Compact Flash Card (Pi3505e/PS)
RAM	Additional 32 MB (Pi3505e) Additional 128 MB (Pi3505e/PS)
HDD	2.5 inch IDE interface (Option)
Resolution	600 × 600 dpi
Interface	USB 1.1, 10/100BaseT, IEEE1284 (Option)
Network Protocols	TCP/IP, NetBEUI, IPX/SPX, IPP, SNMP, HTTP, EtherTalk (Pi3505e/PS only)
Operating Environmental Conditions	Temperature: 10 to 35°C Humidity: 15 to 85%
Font	PCL: Agfa Intellifont 35 TrueType font 10 Bitmap font 1 PS 3 Emulation Type 1 font 136

1-2. Supporting Client Specifications

IBM PC and Compatible Computers	
CPU	Pentium
Memory	32MB or more
OS	Windows 98, Windows 98SE, Windows Me, Windows 2000, Windows XP, Windows NT 4.0
Miscellaneous	Should have sufficient memory and resources in the above Windows and other applications used.
Apple Macintosh Computers (Pi3505e/PS only)	
CPU	Power PC
Memory	64MB or more
OS	Mac OS 8.6, 9.2 or later Mac OS X 10.2 or later

2. FUNCTION OVERVIEW OF CIRCUIT BOARDS

- The circuit boards used in the network interface have the functions described below.

Circuit Board Name	Function Overview
CLAN circuit board	Enables use of network functions by connecting to the MFB3 board.
Printer Circuit Board	Enables use of printer functions by connecting to the MFB3 board. Capacity: 32 MB (Pi3505e)/128 MB (Pi3505e/PS)
Network Scan Circuit Board	Enables use of network scan functions by connecting to the MFB3 board. Capacity: 128 MB
Internet Fax & Network Scan Circuit Board	Enables use of Internet Fax and Network Scan functions by connecting to the MFB3 board. Capacity: 128 MB

2-1. CLAN circuit board

(1) Overview

- This circuit board is constructed to support the following interfaces: USB1.1b to enable use as a computer printer, network LAN with the PCI bus, and expansion PCI.
- Network specifications (Ethernet): 10Base-T/100Base-TX
- Communication protocols: TCP/IP, SMTP, POP3, MIME and HTTP
- Connection methods: Connection to CN7 on MFB3 circuit board

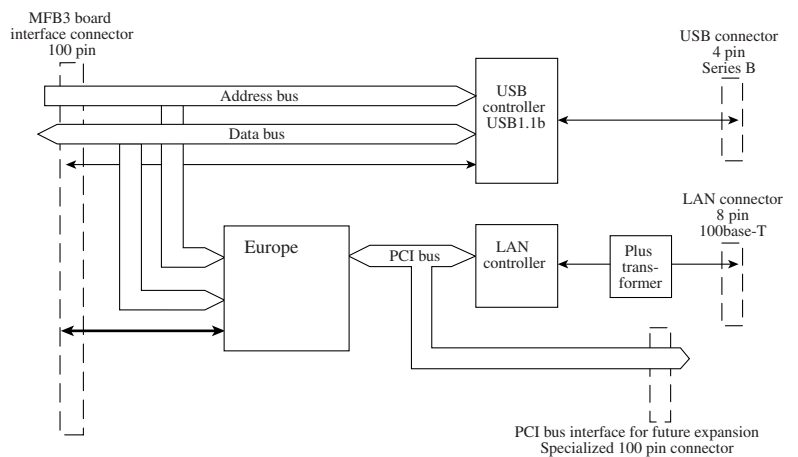
(2) Functions

1. USB1.1b interface
 - Enables use as a computer printer through a connector for a USB connection.
2. Network LAN interface
 - Enables use as a network scanner and network printer through a connector for a network connection.
3. Expansion PCI bus interface
 - Equipped with a PCI bus interface connector (specialized connector: 100 pin) for a future expansion interface.

(3) LED indicators

LED Color	Status	Meaning
Green	Lit	The LAN is connected correctly.
	Off	Data is not being sent or received. The copier has not been turned on. The LAN is not connected correctly.
	Flashing	Data is being sent or received.
Red	Lit	Operating at 100 Mbps
	Off	Operating at 10 Mbps

(4) Block Diagram



C4514S004CA

DIS/REASSEMBLY, ADJUSTMENT

1. DISASSEMBLY/REASSEMBLY

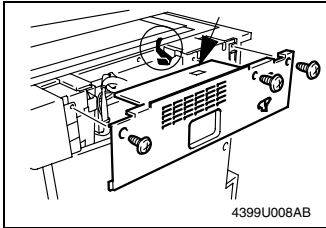
NOTENOTE

- Before reassembling, make sure that the amount of storage memory used is 0%.
 - If the amount of memory used is not 0%, print out or delete any data in the memory.
-

1-1. Removing parts

The following procedures describe the removal of parts related to the network scanner, network interface and printer functions.

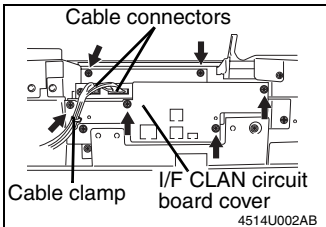
(1) Removing the copier covers



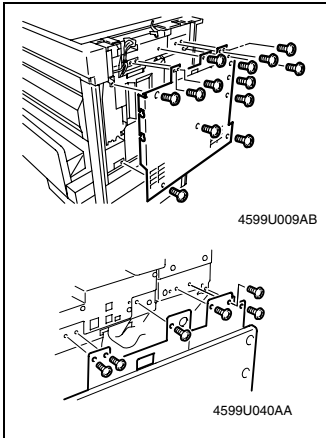
1. Remove the upper rear cover (3 screws).

NOTENOTE

- While removing the cover, be sure to press down on the detecting lever for the duplexing document feeder.
 - When attaching the cover, make sure that the detecting lever fits into the hole in the upper rear cover.
-



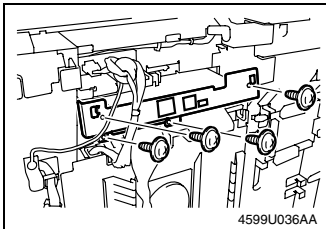
2. Disconnect the 2 cable connectors.
3. Remove the 2 cables from the cable clamp.
4. Remove the I/F CLAN circuit board cover (6 screws).



5. Remove the back panel (13 screws).
(To remove the panel, slightly lift it up.)

NOTE

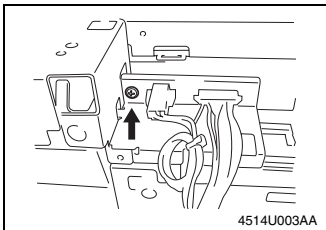
When attaching the rear cover, use 6 gold-colored screws at the top.



6. Remove the reinforcing plate (4 screws).

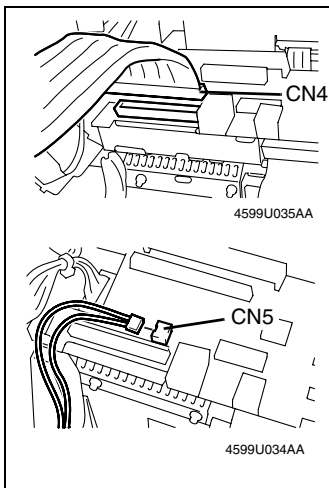
NOTE

Make sure that the flat cable for the hard disk drive and the power relay harness are not pinched.



7. Remove the connector bracket (1 screw).

(2) Removing the CLAN circuit board



1. If the hard disk drive kit is installed, disconnect the connectors from CN4 and CN5 on the CLAN circuit board.

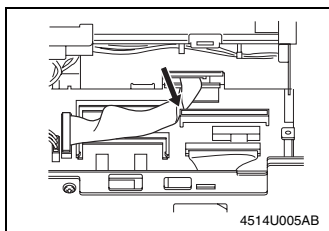
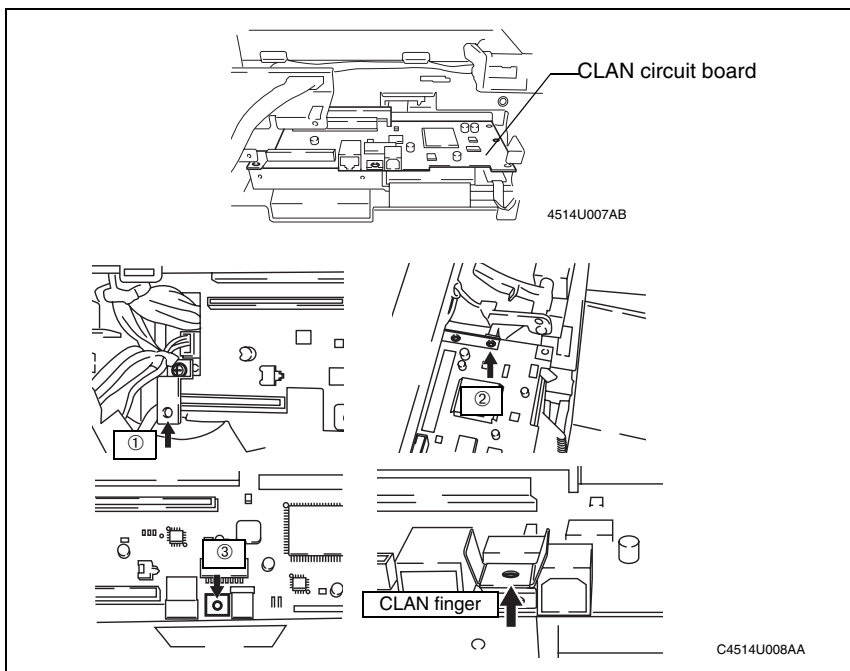
2. Remove the 3 screws.

* Access screw ② through the space between the scanner and the document cover after opening the cover.

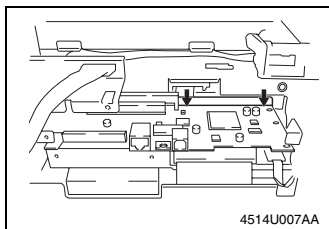
Tighten screw ③ together with the CLAN finger.

Use a short screwdriver on screws ② and ③.

3. Remove the CLAN circuit board.

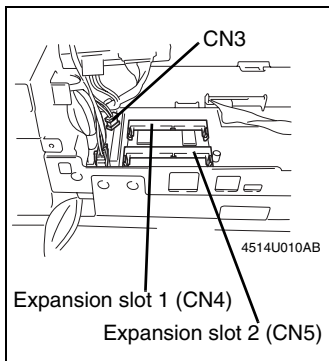


* Before installing the CLAN circuit board, check that the OPE cable does not cover the connector for connecting the CLAN circuit board, and then install the circuit board



* When installing the CLAN circuit board, press down at the two points indicated by arrows, and then firmly insert the connectors. (Do not touch any soldered areas.)

**(3) Removing the expansion circuit boards (printer/network scanner/
network interface)**



1. With the Di3510f, Di3010f, Di2510f and Di2010f, disconnect the Ni-MH battery cable from CN3 on the MFB3 circuit board (in order to prevent damage to the memory IC).

NOTE

Disconnect the Ni-MH battery cable from CN3 on the MFB3 circuit board to stop power from being supplied from the Ni-MH battery to the expansion memory. If the battery cable is not disconnected, the memory IC may be damaged.

2. Remove the Printer circuit board from expansion slot 1 (CN4) of the MFB3 circuit board.
3. Remove the Network Scan circuit board or the Internet Fax & Network Scan circuit board from expansion slot 2 (CN5) of the MFB3 circuit board.

NOTE

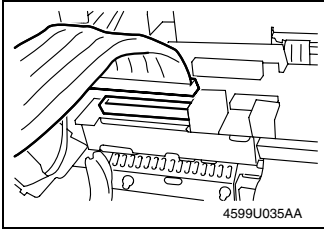
- Do not touch the terminals of the printer circuit board with your bare hands.
 - When installing the printer circuit board, check its installation direction (location of the notch), and then firmly insert the circuit board until it snaps into place.
-

* With Di3501f, Di3010f, Di2510f or Di2010f, after installing the printer circuit board, reconnect the Ni-MH battery cable to CN3 on the MFB3 circuit board.

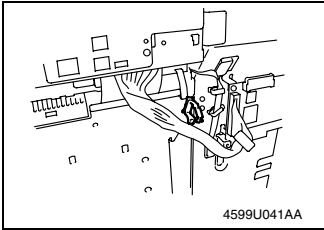
NOTE

If the cable is not reconnected, there will be no backup power if a power failure occurs. Therefore, be sure to reconnect the battery cable.

(4) Removing the expansion hard disk drive



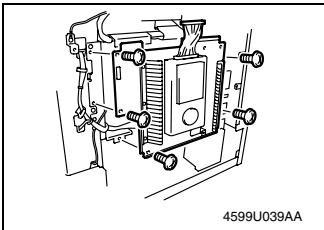
1. Remove the upper rear cover, the rear cover, the I/F CLAN circuit board cover, the reinforcing plate and the connector bracket.
2. Disconnect the connector from CN4 on the CLAN circuit board.



3. Disconnect the copier's relay harness from the wire holder.

NOTE

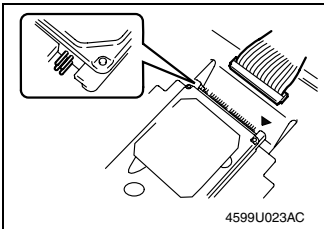
Harness types differ between those for copiers and those for fax machines.



4. Remove the mechanical circuit board cover (5 screws).

NOTE

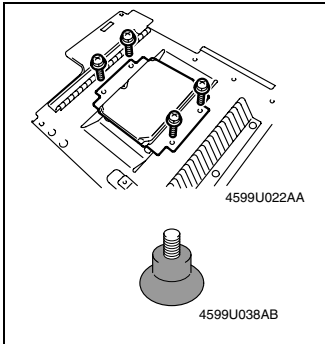
Make sure that the harness on the right side of the mechanical circuit board cover is not pinched.



5. Disconnect the flat cable from the hard disk drive.
- * When connecting the flat cable to the hard disk drive, align the cable with the side of the hard disk drive marked with ▼, and then connect the flat cable.

NOTE

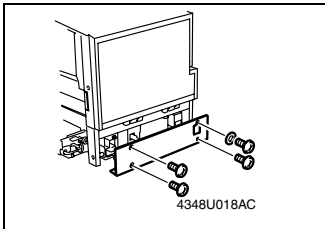
- Connect the flat cable so that the yellow line is on the left side of the hard disk drive.
 - Four pins on the left side of the hard disk drive remain free.
-



6. Remove the mechanical circuit board cover from the hard disk drive (4 screws).

* When attaching the hard disk drive to the mechanical circuit board, tighten the bushing at the back of the mechanical circuit board until it appears as shown in the illustration.

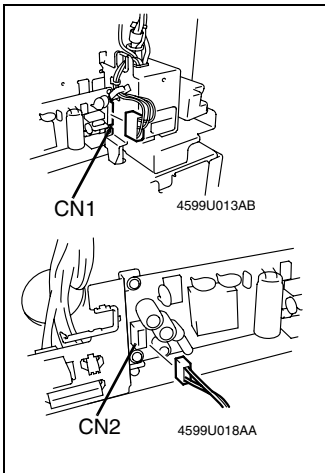
(5) Removing the power supply circuit board for the expansion hard disk drive



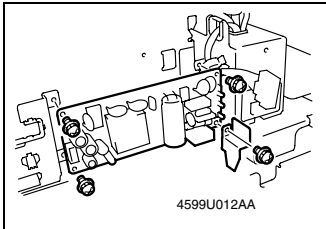
1. Remove the lower rear cover (4 screws).

NOTE

During assembly, place a toothed washer onto the screw in the upper-right corner of the lower rear cover.

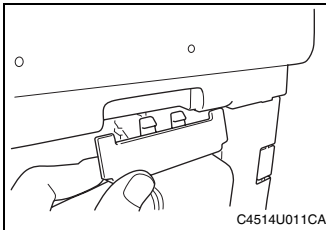


2. Disconnect the connectors from CN1 and CN2 on the power supply circuit board.

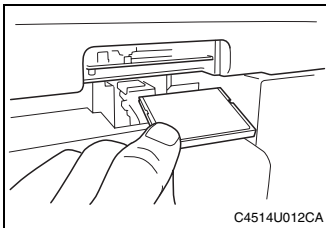


3. Remove the power supply circuit board (4 screws).

(6) Remove the Compact Flash card



1. Remove the ROM cover on the right side of the scanner.



2. Remove the Compact Flash card that is already installed.

1-2. Checking the assembly

(1) Checking the operation of the printer controller

Press the [Utility] key in the control panel, and then check that [Printer Settings] appears in the lower-left corner of the Utility screen, appearing in the touch panel.

(2) Checking the operation of the network scan kit or Internet fax & network scan kit

Press the [Utility] key in the control panel, touch [Admin. Management] in the Utility screen, appearing in the touch panel, and then touch [Admin. 2], then [Network Set], and check that [DNS Settings] appears.

* When specifying network settings, the copier must be turned off, then on again.

DISPLAYS/SETTINGS

1. CHECKING TOUCH PANEL DISPLAYS

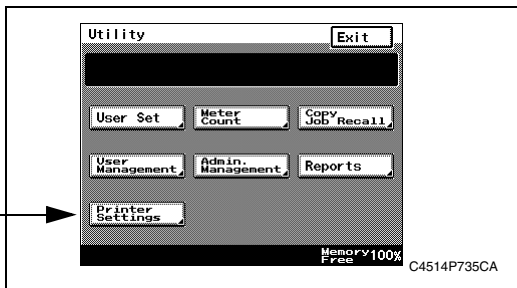
- Check the contents of the touch panel screens as a check after servicing this option.
- If the required options do not appear in the screens, refer to the TROUBLESHOOTING section to correct the problem.

1-1. Printer controller/Network interface unit

Checking that [Printer Settings] appears

1. Press the [Utility] key to display the Utility screen.

[Printer Settings] is displayed.



2. CONTROLLER NETWORK SETTING

Network settings can be made either from the copier control panel or through PageScope Light used on a network PC. Use of PageScope Light allows detailed settings that cannot be made from the copier control panel to be made.

To use PageScope Light, it is necessary to first set the IP address for the controller by following the procedure given below.

Assigning the IP Address

- Press the [Utility] key on the copier control panel.
- Touch [Admin. Management] and input the Administrator code.
- Touch [Admin. 2]
- Touch [Network Set]
- Touch [Basic Setting]
- Make the following settings:
 - IP address : IP address of the controller
 - Subnet mask : Subnet mask for the network to be connected
 - Default gateway : IP address of the default gatewayCheck in advance with the network administrator on the setting values to be entered.
- Turn the Power Switch OFF and then turn it ON. (This step is necessary to validate the data entered.)

Starting PageScope Light

- This is the tool for making settings from the Web browser of the PC connected to the network. The program is mounted in the controller.
- Type the IP address of the controller in the URL field.
E.g.: http://controller_IP_address/
- Type the password in the "Admin Password" box provided at the upper left corner of the screen, then click [Log-in]. This password should be the same as that of the copier administrator. The default value is "00000000" (which can be changed).

3. SOFT SWITCH

3-1. Changing soft switch settings

- In order to change the soft switch settings, display the Soft Switch Set screen, and then specify the new setting.
- With scanner- and network-related soft switches, the screen for specifying the settings can be displayed in two ways: from Tech. Rep. Mode or from Maintenance Mode.

(1) Displaying the setting screen from Tech. Rep. Mode

1. Press the [Utility] key to display the Utility screen.
↓
2. Touch [Meter Count].
↓
3. Press the following keys in order to enter Tech. Rep. Mode.
Stop → 0 → 0 → Stop → 0 → 1
↓
4. Touch [Soft Switch Settings].
↓
5. In the screen that appears, specify the soft switch settings.

(2) Displaying the setting screen from Maintenance Mode

1. Press the [Utility] key to display the Utility screen.
↓
2. Touch [Meter Count].
↓
3. Press the following keys in order to enter Maintenance Mode.
Stop → 0 → 0 → Stop → 0 → 2
↓
4. Touch [Maintenance Mode].
↓
5. Touch [Soft Switch Set].
↓
6. In the screen that appears, specify the soft switch settings.

NOTE

- Since Tech. Rep. Mode and Maintenance Mode should not be available to the user, be sure to turn the copier off, then on again to quit the mode after specifying the necessary settings.
 - In order to ensure that the settings have been correctly specified, check the Service Call Report that is outputted.
-

(3) Displaying the screen for specifying computer-printer-related soft switch settings

1. Press the [Utility] key to display the Utility screen.
↓
2. Touch [Meter Count].
↓
3. Press the following keys in order to enter Maintenance Mode.
Stop → 0 → 0 → Stop → 0 → 2
↓
4. Touch [Admin. Management].
↓
5. Type in the administrator access code (max. 8 digits)
↓
6. Touch [Admin. 2].
↓
7. Touch [Soft SW Set].
↓
8. In the screen that appears, specify the soft switch settings.

3-2. Soft switch settings

(1) Specifying Printer Function Soft Switch Settings

- Mainly soft switches for modes related to printer functions are described.
- Features marked with asterisks can be specified by the user.
* Screen setting, ** Soft switch setting
- The settings in cells with black backgrounds are the settings that were specified during production of the unit.

Mode	Factory Setting								
320		7	6	5	4	3	2	1	0
	Bit:	0	0	1	1	0	0	1	1
		HEX:33							

Bit	Feature	Logical Value		Description	
		0	1		
7 – 4	Computer printing Around-the-clock monitoring timer (t1)	Bit 7-4:	0000	No timeout	Time between commands Specified in 10-minute intervals
			0001	10 minutes	
			0010	20 minutes	
			0011	30 minutes	
			I		
			1111	150 minutes	
3 – 0	Computer printing Around-the-clock monitoring timer (t2)	Bit 3-0:	0000	No timeout	Time between printing pages Specified in 10-minute intervals
			0001	10 minutes	
			0010	20 minutes	
			0011	30 minutes	
			I		
			1111	150 minutes	

NOTE

Setting conditions for bits 7 through 0 of mode 432, wait time for computer printing with full memory (M): Each must be set so that $t2 \geq t1 \geq M$.
For example, if the time for t2 and t1 are short, the time for bits 7 through 0 of mode 432, wait time for computer printing with full memory (M), should also be short.

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
355	7	6	5	4	3	2	1	0		
	Bit:	0	0	1	1	0	0	0	0	HEX:20

Bit	Feature	Logical Value		Description	
		0	1		
7 – 6	Switching between 10 Mbps and 100 Mbps: Specifies the communication speed for the LAN adapter. (network function) *	Bit 7-6: 00		Auto-negotiate	• Auto-negotiate setting: Automatically distinguishes between 10BASE-T and 100BASE-TX, and determines the communication speed. • Fixed at 100 Mbps: Specifies a connection fixed at 100BASE-TX. • Fixed at 10 Mbps: Specifies a connection fixed at 10BASE-T. • The settings are applied after the copier is turned off, then on again.
		01		Fixed at 100 Mbps	
		10		Fixed at 10 Mbps	
		11		Do not specify this setting.	
5	Switching between full duplex and half duplex: Specifies the packet transmission when connected to a switch. (network function) *	Full duplex	Half duplex	Available when bits 7 and 6 of mode 355 are set to "Fixed at 100 Mbps" or "Fixed at 10 Mbps". • Full duplex setting: Transmission and reception of packets are performed simultaneously. • Half duplex setting: Transmission and reception of packets are performed separately. The settings are applied after the copier is turned off, then on again.	
4	Automatic acquisition of IP address *	No	Yes	DHCP	
3 – 0		Fixed		Do not change these settings.	

*1 With "Fixed at 100 Mbps" and "Fixed at 10 Mbps", if the communication speed is not correctly set, communication will not be performed correctly. Check the communication speed of the recipient, and make sure that the correct setting is selected.

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
413	Bit:	7	6	5	4	3	2	1	0	HEX:04
		0	0	0	0	0	1	0	0	

Bit	Feature	Logical Value		Description
		0	1	
7 – 6	Selection of fax (G3-1) output tray*	Bit 7-6: 00		1st paper output tray
		01		2nd paper output tray
		10		Additional bin
		11		Do not specify this setting.
5 – 4	Selection of output tray for computer printouts *	Bit 5-4: 00		1st paper output tray
		01		Sorted copy tray
		10		3rd paper output tray
		11		Do not specify this setting.
3		Fixed		Do not change this setting.
2	Selection of copy output bin *	Bin 1	Bin 2	Specifies the copy output bin when the job separator is installed.
1	Selection of fax (G3-1) output bin *	Bin 1	Bin 2	Specifies the bin that fax (G3-1) prints are fed into when the job separator is installed.
0	Selection of output bin for computer printouts *	Bin 1	Bin 2	Specifies the bin that computer printouts are fed into when the job separator is installed.

Mode	Factory Setting									
432	Bit:	7	6	5	4	3	2	1	0	HEX:05
		0	0	0	0	0	1	0	1	

Bit	Feature	Logical Value		Description	
		0	1		
7 – 0	Wait time for computer printing with full memory (M) *	Bit 7-0:		<div>Specifies the wait time for computer printing when the memory is full (M)</div> <div>Setting range: 0 minutes, 1 to 30 minutes (1-minute intervals)</div> <div>Erases the computer print job after reaching the specified wait time when the memory is full.</div> <div>Setting conditions for bits 7 through 4 of mode 320, around-the-clock monitoring timer (t1), and bits 3 through 0 of mode 320, around-the-clock monitoring timer (t2): Each must be set so that $t2 \geq t1 \geq M$.</div>	
		00000000			Erase immediately
		00000001			1 minute
		1			
		00000101			5 minutes
		1			
		00011110			30 minutes
		Others			Do not specify these settings.

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
440	Bit:	7	6	5	4	3	2	1	0	HEX:12
		0	0	0	1	0	0	1	0	

Bit	Feature		Logic		Description
			0	1	
7 – 6	PDL set *	*	Bit 7-6: 00		Auto
			01		PCL
			10		PS
			11		Other
5 – 1	Paper size set *	*	Bit 5-1: 00000		A3
			00001		B4
			00010 ^{*1}		A4
			00011		B5
			00100		A5
			00101		B6
			00110		A6
			00111		Statement(Invoice)
			01000		Executive
			01001 ^{*2}		letter
			01010		Ledger (11x17)
			01011		FLS1 (Folio, F4)
			01100		FLS2
			01101		FLS3
			01110		FLS4
			01111		Legal (8.5x14)
			10000		11x14
			10001		envelope B5
			10010		envelope Com10
			10011		envelope C5
			10100		envelope DL
			10101		envelope Monarch
			10110		J-POST (Hagaki)
			10111		Custom paper
			11000		K16
			11001		K8
			11010		ISO B4
			11011		ISO B5
			Others		Not available
0			Fixed		Do not change this setting.

Note. ^{*1}: Outside North America

^{*2}: North America

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
441	Bit:	7	6	5	4	3	2	1	0	HEX:80
		1	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 4	Select a paper feeder cassette to use when using PC printer function *	Bit 7-4: 0000		1st drawer
		0001		2nd drawer
		0010		3rd drawer
		0011		4th drawer
		1000		Auto
		1010		Bypass
		1100		LCC
		Others		Not available
3 – 2	Select a paper orientation to set when using PC printer function *	Bit 3-2: 00		Portrait
		01		Landscape
		10		other
		11		Not available
1 – 0	Select a print method to use when using PC printer function *	Bit 1-0: 00		1-sided print
		01		2-sided print for short-edge binding
		10		2-sided print for long-edge binding
		11		Not available

Mode	Factory Setting									
442	Bit:	7	6	5	4	3	2	1	0	HEX:01
		0	0	0	0	0	0	0	1	

Bit	Feature	Logic		Description
		0	1	
7 – 0	Select # (last 8 bits) of copies to print by PC printer *	Bit 7-0: 00000000		Not available
		00000001		1
		1		
		11100111		999
		1		
		11111111		

Mode	Factory Setting									
443	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 2		Fixed		Do not changes these settings.
1 – 0	Select # (first 2 bits) of copies to print by PC printer *	Bit 1-0: 00		0
		1		
		11		999

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
444	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 2	Select a font type to be set when using PC printer function *	Bit 7-2:	000000	Courier
			000001	CG Times
			000010	CG Times Bold
			000011	CG Times Italic
			000100	CG Times Bold Italic
			000101	CG Omega
			000110	CG Omega Bold
			000111	CG Omega Italic
			001000	CG Omega Bold Italic
			001001	Coronet
			001010	Clarendon Condensed
			001011	Univers Medium
			001100	Univers Bold
			001101	Univers Medium Italic
			001110	Univers Bold Italic
			001111	Univers Medium Condensed
			010000	Univers Bold Condensed
			010001	Univers Medium Condensed Italic
			010010	Univers Bold Condensed Itali
			010011	Antique Olive
			010100	Antique Olive Bold
			010101	Antique Olive Italic
			010110	Garamond Antiqua
			010111	Garamond Halbfett
			011000	Garamond Kursiv
			011001	Garamond Kursiv Halbfett
			011010	Marigold
			011011	Albertus Medium
			011100	Albertus Extra Bold
			011101	Arial
			011110	Arial Bold
			011111	Arial Italic
			100000	Arial Bold Italic
			100001	Times New
			100010	Times New Bold
			100011	Times New Italic
			100100	Times New Bold Italic
			100101	Symbol
			100110	Wingdings
			100111	Courier Bold
			101000	Courier Italic
			101001	Courier Bold Italic
			101010	Letter Gothic
			101011	Letter Gothic Bold
			101100	Letter Gothic Italic
			101101	Line Printer
			Others	Not available
1 – 0		Fixed		Do not change these settings.

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting							
445	7	6	5	4	3	2	1	0
Bit:	0	1	0	1	1	1	0	0
HEX:5C								

Bit	Feature	Logic		Description
		0	1	
7 – 2	Select a font type to be set when using PC printer function *	Bit 7-2:	000000	Desktop
			000001	ISO4: United Kingdom
			000010	ISO6: ASCII
			000011	ISO 11: Swedish
			000100	ISO 15: Italian
			000101	ISO 17: Spanish
			000110	ISO21: German
			000111	ISO 60: Norwegian V1
			001000	ISO 69: French
			001001	ISO 8859/1 Latin1
			001010	ISO 8859/2 Latin2
			001011	ISO 8859/9 Latin5
			001100	Legal
			001101	Math-8
			001110	Microsoft Publish
			001111 ^{*1}	"PC-8(Code Page 437)"
			010000	PC-8 Danish/Norwegian
			010001	PC-850 Multilingual
			010010	PC-852 Latin2
			010011	PC-Turkish
			010100	PS Math
			010101	PS Text
			010110	Pi Font
			010111 ^{*2}	Roman-8
			011000	Ventura International
			011001	Ventura Math
			011010	Ventura US
			011011	Window 3.0 Latin1
			011100	Window 3.1 Latin1
			011101	Window 3.1 Latin2
			011110	Window 3.1 Latin5
			011111	MC Text
			100000	Wingdings
			100001	Symbol
			100010	PC-866
			100011	ISO8859-10
			100100	PC1004
			100101	Window Baltic
			100110	PC-775
		Others		Not available
1 – 0		Fixed		Do not change these settings.

Note. ^{*1}: Outside North America

^{*2}: North America

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
446	Bit:	7	6	5	4	3	2	1	0	HEX:3C
		0	0	1	1	1	1	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 0	Select # of lines to set when using PC printer function *	Bit 7-0: 00000101		5
		I		
		00111100 ^{*1}		60
		01000000 ^{*2}		64
		10000000		128
		Others		Not available

Note. ^{*1}: North America

^{*2}: Outside North America

Mode	Factory Setting									
447	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7	Select the unit of font size to use when using PC printer function *	Pitch	Point	
6 – 0		Fixed		Do not change these settings.

Mode	Factory Setting									
448	Bit:	7	6	5	4	3	2	1	0	HEX:30
		0	0	1	1	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 0	Select font size to use when using PC printer function (Scalable font size) (Last 8 bits) *	Bit 7-0: 00000000		5
		I		
		00010000		4.00 (16)
		I		
		00110000		12.00 (48)
		I		
		11111111		

Mode	Factory Setting									
449	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 4		Fixed		Do not change these settings.
3 – 0	Select a font size to use when using PC printer function (Scalable font size) (First 8 bits) *	Bit 3-0: 0000		0
		I		
		1111		999.75 (3999)

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
450	Bit:	7	6	5	4	3	2	1	0	HEX:E8
		1	1	1	0	1	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 - 0	Select font size to use when using PC printer function (Bitmap font size) (Last 8 bits) *	Bit 7-0: 00000000		
		I		
		00101100		0.44 (44)
		I		
		11101000		10.00 (1000)
		I		
		10101100		99.00 (9900)
		I		
		11111111		

Mode	Factory Setting									
451	Bit:	7	6	5	4	3	2	1	0	HEX:03
		0	0	0	0	0	0	1	1	

Bit	Feature	Logic		Description
		0	1	
7 - 6		Fixed		Do not change these settings.
5 - 0	Select font size to use when using PC printer function (Bitmap font size) (First 8 bits) *	Bit 5-0: 000000		
		I		
		000011		10.00 (1000)
		I		
		100110		99.00 (9900)
		Others		Not available

Mode	Factory Setting									
452	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7	Change between A4 and letter size for PC printing *	No	Yes	
6 - 0		Fixed		Do not change these settings.

Mode	Factory Setting									
453	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7	Set OFF or ON of postscript error printing to apply when using PC printer function *	OFF	ON	
6 - 0		Fixed		Do not change these settings.

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
454	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 6	Select the parallel port setting for PC printing *	Bit 7-6: 00		ECP
		01		Compatible
		10		Nibble
		11		Not available
5 – 0		Fixed		Do not change these settings.

Mode	Factory Setting									
455	Bit:	7	6	5	4	3	2	1	0	HEX:0F
		0	0	0	0	1	1	1	1	

Bit	Feature	Logic		Description	
		0	1		
7 – 0	Select timeout timer (last 8 bits) for PC printing *	Bit 7-0: 00000000		Not available	
		00001001		10 sec	
		00001010			
				15 sec	
		00001111			
				300 sec	
		00101100			
				Not available	
		11111111			

Mode	Factory Setting									
456	Bit:	7	6	5	4	3	2	1	0	HEX:01
		0	0	0	0	0	0	0	1	

Bit	Feature	Logic		Description
		0	1	
7 – 1		Fixed		Do not change these settings.
0	Select timeout timer (first 1 bit) for PC printing	0	300 sec	Most significant bit for mode 455

Mode	Factory Setting									
464	Bit:	7	6	5	4	3	2	1	0	HEX:8C
		1	0	0	0	1	1	0	0	

Bit	Feature	Logic		Description
		0	1	
7 – 0	Select RAW port number (last 8 bits)	Bit 7-0: 00000000		Not available
		00000001		1
		I		9100
		10001100		
		I		65535
		11111111		

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

Mode	Factory Setting									
465	Bit:	7	6	5	4	3	2	1	0	HEX:23
		0	0	1	0	0	0	1	1	

Bit	Feature	Logic		Description	
		0	1		
7 – 0	Select RAW port number (first 8 bits)	Bit 7-0: 00000000		Do not specify these settings.	Most significant bit for mode 464
		00000001		1	
		I			
		00100011		9100	
		I			
		11111111		65535	

Mode	Factory Setting									
467	Bit:	7	6	5	4	3	2	1	0	HEX:00
		0	0	0	0	0	0	0	0	

Bit	Feature	Logic		Description	
		0	1		
7 – 5	Select frame type for PC printing*	Bit 7-5: 000	Auto detect		
		001	Ethernet-II		
		010	802.2		
		011	802.3		
		100	SNAP		
		Others	Do not specify these settings.		
		4 – 0			Fixed

Mode	Factory Setting									
468	Bit:	7	6	5	4	3	2	1	0	HEX:0F
		0	0	0	0	1	1	1	1	

Bit	Feature	Logic		Description	
		0	1		
7	Setting passive mode	OFF	ON		
6 – 0	Automatic arrival check EP-NET server setting	Bit 6-0: 00000000		0	
		00000001		1 min	
		I			
		00011111		15 min	
		I			
		11110000		120 min	
		Others		Not available	

Note: Features marked with asterisks can be specified by the user. * indicates screen settings.

TROUBLESHOOTING

1. PROBLEMS WHILE PRINTING FROM A COMPUTER

1-1. Computer printing problems

Number	Symptom	Possible Cause	Remedy	Description
1	The printing position does not match the previously used printer.	The application paper and print settings are incorrectly specified.	Check the instruction manual for the application, and then correctly specify the settings.	Depending on the software, if the settings are incorrect, even by a small amount, the printing position may be shifted.
		The paper that is being used does not meet the specifications for the printer.	Refer to "Paper Tab" in the Printer Controller User Manual, and then check the paper.	With this unit, paper is fed by the friction of rollers. Due to this, there may be slight errors in the horizontal and vertical directions. These errors differ depending on the paper.
2	Only some of the pages were printed, or the data for one page was printed on two pages.	The binding margin is incorrect.	Check the print area.	
3	The left side of the page is blank. (The text is only printed on the right side of the paper.)	The paper position shifted.	<ul style="list-style-type: none">• Correctly load the paper.• Check the margin settings specified in the application.	
4	Text different from the text in the screen was printed.	The printer is not set to the settings most appropriate for the computer environment.	Specify the appropriate printer settings.	
		The interface cable is not correctly connected.	Check that the cable is correctly connected to the copier and the computer.	
		A printer buffer or a switch is being used.	Change the connections so that a printer buffer and switch is not being used.	

Number	Symptom	Possible Cause	Remedy	Description
5	Blank pages are fed out.	There are blank pages in the print data.	Remove the blank pages from the print data, or select the appropriate copier or printer driver setting that does not output blank pages. (Depending on the data format, blank pages may not be outputted.)	
6	When the document is reduced, the print result differs from the document before it was reduced.	_____	_____	With this unit, reduced printing is performed by reducing coordinates. At that time, round-off errors may occur in the values, and the print result may appear different due to changes in the data, such as overlapping images.

Number	Symptom	Possible Cause	Remedy	Description
7	Data was sent, but could not be printed, or printing did not begin for a long time.	The specifically designed printer driver was not used.	Use the specifically designed printer driver.	If the print data cannot be received correctly, stop printing.
		The correct cable is not used, or the cable is not correctly connected.	Check the cable.	
		Data transmission was not finished.	Wait a little while longer.	Since this unit is a page printer, if the data for one page is incomplete, printing will not begin. In addition, if a large amount of data is being sent in the graphics mode, data transmission takes some time.
		The print port for the driver is incorrect.	Check the print port on the Ports tab (Windows 2000/XP/NT 4.0) or General tab (Windows 98/Me)	
		This unit is not selected as the default printer.	Select this unit as the default printer.	
		The print queue is temporarily paused or is offline.	Continue the queue or set the copier online.	
8	No paper is fed out.	There is no paper, or there is no paper of the specified size.	If a message appears, indicating that the paper must be replenished, load the paper.	
		Mailbox printing has been specified.		Paper is not fed out if mailbox printing has been specified.
9	Paper of the specified size is loaded, but printing is not performed.	The paper drawer has been specified.	————	When specifying a paper drawer, depending on the settings for the selected paper drawer, do not select paper in a drawer with different settings.

Number	Symptom	Possible Cause	Remedy	Description
10	The printed pages were not sorted in a crisscross orientation.	There are limitations on the sizes of paper that can be sorted in a crisscross orientation. Paper of the same size is not loaded horizontally and vertically in separate paper drawers.	Check the paper size, and check that the paper is loaded horizontally and vertically.	
11	Cover pages and overhead projector transparency interleaves are not printed correctly.	The orientations specified for the paper drawers containing the cover pages (or overhead projector transparencies) and containing the paper are not the same.	Specify the same orientations.	
12	The paper size cannot be specified.	If booklet binding is specified, paper larger than A4, postcards and envelopes cannot be specified.	Check if the "Booklet Creation" setting is selected.	Depending on the Finishing setting that is selected, the paper size cannot be specified.
13	The paper size is not as specified.	Depending on the application, the paper size specified from the printer's Properties dialog box is not applied.	Specify the paper size by using the Print command in the application.	The paper size can be specified both from the printer's Properties dialog box and by using the Print command in most applications; however, depending on the application, the paper size selected from the printer's Properties dialog box may not be applied.

Number	Symptom	Possible Cause	Remedy	Description
14	The desired paper source cannot be selected.	Additional optional paper feed units are not installed, or the 3rd and 4th paper drawers cannot be selected from the paper source options on the Device Options Setting tab.	Check that the additional paper feed units are installed, and check the selected settings on the Device Options Setting tab.	In order to specify the 3rd or 4th paper drawer as the paper source, additional optional paper feed units must be installed. In addition, if the 3rd and 4th paper drawers are not detected, they cannot be selected from the paper source options on the Device Options Setting tab.
		Postcards, envelopes or a non-standard size is selected as the paper size.	Check the paper size.	If postcards are selected as the paper size, the "Auto Paper" and the 1st through 4th paper drawers cannot be selected.
15	The paper source is not as specified.	Depending on the application, the paper source specified from the printer's Properties dialog box is not applied.	Specify the paper source by using the Print command in the application.	The paper source can be specified both from the printer's Properties dialog box and by using the Print command in most applications; however, depending on the application, the paper source selected from the printer's Properties dialog box may not be applied.
		Paper with the appropriate size is not loaded in the specified paper drawer.	Load paper with the appropriate size into the specified paper drawer.	
16	The printing orientation is not as specified.	Depending on the application, the printing orientation specified from the printer's Properties dialog box is not applied.	Specify the printing orientation by using the Print command in the application.	The printing orientation can be specified both from the printer's Properties dialog box and by using the Print command in most applications; however, depending on the application, the printing orientation selected from the printer's Properties dialog box may not be applied.

Number	Symptom	Possible Cause	Remedy	Description
17	Sorting is not performed as specified.	The sorting method has been specified by using the Print command in the application.	By using the Print command in the application, specify that no sorting is to be performed, and then select the sort setting from the printer's Properties dialog box.	<p>Sorting can be specified both from the printer's Properties dialog box and by using the Print command in most applications; however, depending on the application, sorting selected by using the Print command may result in any of the following.</p> <ul style="list-style-type: none"> • If double-sided printing is selected, the first page of the n+1 set is printed on the reverse side of the last page of the n set. • If booklet binding is specified, all pages are printed and combined into one set. • If stapling is selected, all pages are stapled together as one set. • If the "Distribution #" function is used, all pages are printed with the same distribution number. • If mailbox printing is specified, documents of the set number of copies can be held in the copier to be printed.

Number	Symptom	Possible Cause	Remedy	Description
18	The number of copies is not as specified.	Whether the setting specified from the printer's Properties dialog box or the setting specified by using the Print command has priority differs depending on the application.	First, specify one copy by using the Print command in the application, and then specify the necessary number of copies from the printer's Properties dialog box. If only one copy is printed, specify the necessary number of copies by using the Print command in the application.	The number of copies can be specified both from the printer's Properties dialog box and by using the Print command in most applications; however, whether the setting specified from the printer's Properties dialog box or the setting specified by using the Print command has priority differs depending on the application.
19	Double-sided printing cannot be selected.	The optional duplexing document feeder is not installed, or the duplexing document feeder is not selected on the Device Options Setting tab.	Check that the duplexing document feeder is installed, and check the selected settings on the Device Options Setting tab.	In order to specify double-sided printing, the optional duplexing document feeder must be installed. In addition, double-sided printing cannot be specified unless the duplexing document feeder is selected on the Device Options Setting tab.
		The paper size setting is smaller than the standard size, such as for postcards or envelopes.	Check the paper size setting, and check if the "OHP Interleaving" function is selected.	
20	Double-sided printing is not performed as specified.	The paper size of each page is different.	Check the paper size.	Double-sided printing on the same pages is not possible with documents that have differing paper sizes for each page. * If multiple double-sided copies are not printed correctly, refer to the information on sorting. Even if the paper size is larger than the standard size, printing is not possible on paper such as thick paper or overhead projector transparencies.

Number	Symptom	Possible Cause	Remedy	Description
21	The binding position cannot be specified.	Double-sided printing or booklet binding is not specified.	Check that double-sided printing or booklet binding is selected.	The binding position and the binding margin can only be specified if double-sided printing or booklet binding is specified.
22	The binding position is not as specified.	Hole punching or stapling are specified with double-sided printing.	Check if hole punching or stapling are specified.	If hole punching or stapling is specified with double-sided printing, the binding position is adjusted for the positions of the punched holes or staples.
23	Booklet binding cannot be specified.	The optional duplexing document feeder is not installed, or the duplexing document feeder is not selected on the Device Options Setting tab.	Check that the duplexing document feeder is installed, and check the selected settings on the Device Options Setting tab.	In order to specify booklet binding, the optional duplexing document feeder must be installed. In addition, booklet binding cannot be specified unless the duplexing document feeder is selected on the Device Options Setting tab.
24	Booklet binding is not performed as specified.	The paper size of each page is different.	Check the paper size.	* If multiple copies are not printed correctly with booklet binding, refer to the information on sorting.
25	Output tray cannot be selected.	The optional mail bin kit is not installed, or the mail bin kit is not selected on the Device Options Setting tab.	Check that the mail bin kit is installed, and check the selected settings on the Device Options Setting tab.	In order to specify the output tray, the optional mail bin kit must be installed. In addition, the output tray cannot be specified unless the mail bin kit is selected on the Device Options Setting tab.
			Check the paper size setting, and check if the "Cover Mode" or "OHP Interleaving" function is selected.	When using paper with a size other than A4, A5, JIS-B5, Invoice, Executive, Letter or 16K, the output tray cannot be selected.

Number	Symptom	Possible Cause	Remedy	Description
26	The output tray is not as specified.	<ul style="list-style-type: none"> Thick paper or overhead projector transparencies are used. Paper with a size other than A4, A5, JIS-B5, Invoice, Executive, Letter or 16K is used. 	Check the paper type and size.	When using thick paper, overhead projector transparencies or paper with a size other than A4, A5, JIS-B5, Invoice, Executive, Letter or 16K, the paper cannot be fed into mail bins 1 through 4.
27	Hole punching cannot be performed as specified.	The optional finisher and saddle kit is not installed, or the finisher and punch kit are not selected on the Device Options Setting tab.	Check that the finisher and saddle kit are installed, and check the selected settings on the Device Options Setting tab.	In order to specify hole punching, the optional finisher and saddle kit must be installed. In addition, hole punching cannot be specified unless the finisher and saddle kit are selected on the Device Options Setting tab.
		<ul style="list-style-type: none"> Postcards or envelopes are selected as the paper size. The paper is being supplied manually. Booklet binding is specified. Overhead projector transparency interleaving is specified with the "Cover Mode" or "OHP Interleaving" function. 	Check the paper type, paper size and paper source settings, and check if the "Booklet Creation" setting or the "Cover Mode" or "OHP Interleaving" function is selected.	
28	Hole punching is not performed as specified.	Thick paper, overhead projector transparencies or envelopes are used.	Check the paper type.	<ul style="list-style-type: none"> When using the finisher, hole punching cannot be performed with overhead projector transparencies and envelopes.
		Hole punching will be parallel to the paper feed direction.	Check the direction that the paper is loaded.	Holes cannot be punched parallel to the feeding direction. For example, when printing a landscape document on A3 paper in the portrait orientation, holes cannot be punched at the top of the page.

Number	Symptom	Possible Cause	Remedy	Description
29	Stapling cannot be specified.	The optional finisher is not installed, or the finisher is not selected on the Device Options Setting tab.	Check that the finisher is installed, and check the selected settings on the Device Options Setting tab.	In order to specify stapling, the optional finisher must be installed. In addition, stapling cannot be specified unless the finisher is selected on the Device Options Setting tab.
		<ul style="list-style-type: none"> The paper size setting is smaller than the standard size, such as for postcards or envelopes. Booklet binding or overhead projector transparency interleaving is specified. 	Check the paper size setting, and check if the "Booklet Creation" setting or the "OHP Interleaving" function is selected.	
30	Stapling is not performed as specified.	Thick paper or overhead projector transparencies are used.	Check the paper type.	
		<ul style="list-style-type: none"> The number of copies exceeds 50 pages. Paper with different sizes are combined. 	Check the number of copies and the paper size.	
		Stapling will be parallel to the paper feed direction.	Check the direction that the paper is loaded.	Staples cannot be punched parallel to the feeding direction. For example, when printing a landscape document on A4 paper in the portrait orientation, staples cannot be punched at the top of the page. The stapling position for a single staple, as a rule, is in the upper-left corner of paper loaded in the landscape orientation.

Number	Symptom	Possible Cause	Remedy	Description
31	The “Cover Mode” and “OHP Interleaving” functions cannot be specified.	If two or more copies are specified, if the paper source is set to the 1st through 4th paper drawers, or if double-sided printing, booklet printing, distribution number printing, reprinting, stapling or hole punching are specified, the “OHP Interleaving” function cannot be selected.	Check if multiple copies or the paper source are selected, if the “Booklet Creation” setting or the “Distribution #” or “OHP Interleaving” function is selected, and if reprinting, stapling or hole punching are selected.	
		If booklet binding is selected, the “Cover Mode” function cannot be selected.	Check if the “Booklet Creation” setting is selected.	
32	The size of the interleaves or cover pages is not the same.	The paper drawer for the interleaves or cover pages is not specified.	Specify the paper drawer loaded with paper for the interleaves and cover pages with the same orientation and size as the document.	
33	Distribution numbering cannot be specified.	If sorting is not specified, distribution numbering cannot be selected.	Check that sorting is selected.	
34	Distribution numbering is not performed as specified.	After specifying the distribution number, sorting was cancelled.	Check that sorting is specified. Depending on the selected settings, not all distribution number may be printed.	When the “Distribution #” function was specified, sorting was specified. However, if sorting was later cancelled, the “Distribution #” function will also be cancelled.
35	The print result is different from the previewed image.	Paper with the correct size and orientation is not loaded.	Check the specified paper size and orientation in the application and printer's Properties dialog box.	Since the paper size and orientation settings specified in the application have priority over the settings in the printer's Properties dialog box, the print result may be different from the previewed image.

2. WARM RESTART

2-1. Overview

- Perform this operation when entering Maintenance Mode and when the touch panel buttons cannot be used (do not operate correctly) if a malfunction occurs while the machine is running (sending, receiving, copying, etc.).

Pressing this button initializes the unit, but documents stored in the unit's memory and program settings are saved. After the unit is initialized, the specified operations are performed on the documents stored in the unit's memory (except with copies and computer printouts).

2-2. Warm restart procedure

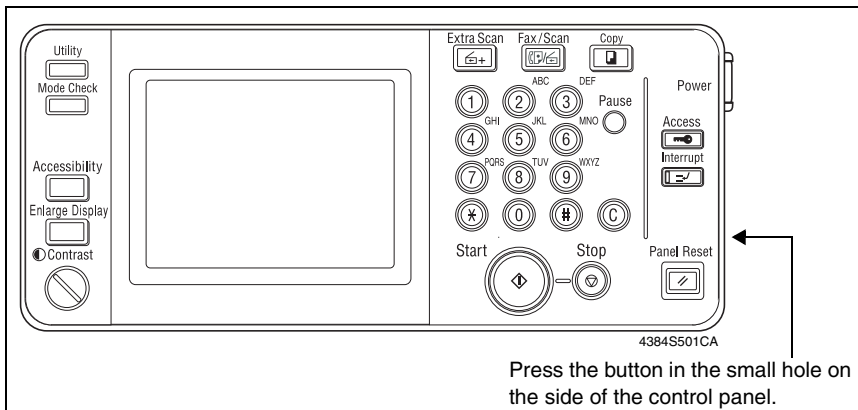
- Press the button in the small hole on the side of the control panel.

2-3. Warm restart operation

- The warm restart operation begins when the operation described in 2-2 is performed. At this time, the touch panel goes off.

After approximately 5 seconds, the warm restart operation is completed and the initial screen appears in the touch panel. Then, the specified operations are performed on the documents stored in the unit's memory.

Control panel





Copyright
2003 MINOLTA CO., LTD.

Use of this manual should be strictly supervised to
avoid disclosure of confidential information.

MINOLTA Co.,Ltd.